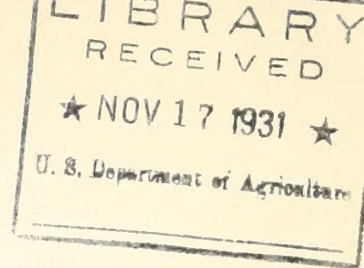


## Historic, archived document

Do not assume content reflects current  
scientific knowledge, policies, or practices.



6915L



# PLANT INTRODUCTIONS

## TWENTIETH ANNUAL LIST

Season 1931-2

-----

Containing Descriptions of the More Important

Introduced Plants Now Ready

For Experimenters

-----

Division of Foreign Plant Introduction

Bureau of Plant Industry

United States Department of Agriculture

Washington, D. C.

All plants sent out by this Division to experimenters are inspected at the Plant Introduction Gardens by officers of the Plant Quarantine and Control Administration. At the time this Annual List goes to press the inspection has not been made. It is possible, therefore, that quarantine regulations may prevent the sending out of a few plants herein described.



## PLANT INTRODUCTIONS.

Experimenters will please read carefully this introductory note before sending in their requests for plant material.

This, the Twentieth Annual List of Plant Introductions, contains descriptions of many new and rare plants, not yet widely tested in this country. The available information concerning some of them is meager, and it is therefore impossible to speak with assurance regarding their value, their cultural requirements, and their adaptability to the various climates and soils of the United States.

These plants have been imported because it is believed some direct or indirect use can be made of them. They are first placed at the disposal of the experts engaged in plant breeding, crop acclimatization, and horticultural investigations generally in the United States Department of Agriculture and the State Experiment Stations. Some of them have been grown in sufficient quantity, however, so that they can be distributed to some private experimenters who have the facilities to test them carefully. The List is therefore sent to those who have qualified as Experimenters with the Division of Foreign Plant Introduction, and who have indicated a willingness to care for material sent them.

Accompanying this Annual List are complete Check Lists showing all plants available for distribution at the several Plant Introduction Gardens during the season 1931-2 and the Garden from which available. Applicants for material should fill out all blanks at the top of the Check List of each garden from which they request plants, place a mark to the left of the F. P. I. (Foreign Plant Introduction) number of each plant desired, and return the lists promptly to this Division.

It should be distinctly understood that the Division does not agree to supply all the plants requested. It reserves the right to limit the number or to withhold the entire requests of any experimenter in order that it may place the material according to its best judgment.

It will be noted that this list is shorter than some former lists. Each succeeding list will be shorter, in all probability, until it contains only such miscellaneous material as remains after institutional and special experiments are provided for.

The shipping season extends, as a rule, from December first to April first. Because of the large quantity of plants which must be handled, it is difficult for the Division to single out individual requests and ship them at a certain date; where there are valid reasons, however, for requesting that material be sent at a specified time, every effort will be made to meet the requests.

These plants are placed in the hands of experimenters with the understanding that reports on their behavior will be sent to this Division from time to time. It is particularly desired that reports be sent regarding the flowering, fruiting, hardiness, utilization and other interesting features of plants which have been sent for trial; and it is expected that experimenters will at all times preserve the original labels sent with the plants, or accurate plats showing the location and F. P. I. number of each one. Failure to comply with these directions will be considered sufficient reason for a discontinuance of the cooperative relation.

NOV 17 1931

Janice S. Brown

It will be necessary for experimenters to preserve and refer to the Annual Lists of Plant Introductions, or to the Inventories published by the Division, for information regarding the plants. Each Inventory lists the seeds and plants imported during a period of three months. Its object is to serve as an historical record; it is not printed immediately following the arrival of the plants, but eighteen to twenty-four months later. The edition is limited, and it cannot be supplied to all experimenters. This makes essential the preservation of the Annual List as a work of reference, and the Division desires to urge upon its cooperators the importance of this step. Unless the Annual lists are preserved, the Division later will be flooded with inquiries from persons who have received plants and who desire information concerning them. Answering such inquiries involves much unnecessary labor and expense.

For convenience in using the Annual List, after each description is given in parenthesis the name of the garden or gardens at which the plants are being grown.



Descriptive List.

65314. ABELIA SCHUMANNII. Caprifoliaceae. Presented by the late Dr. C. S. Sargent, Arnold Arboretum, Jamaica Plain, Mass. A handsome evergreen bush of somewhat spreading habit, native to China. The young branches become pendulous with the weight of the flowers, which resemble small pentstemon flowers. They are pale mauve, with a white throat and a pale orange blotch, and are about an inch long. In England the flowering period commences in June and lasts for several weeks. The shrub is less hardy than Abelia grandiflora. For trial in the middle and lower south and on the Pacific coast. (Bell, Md.)

91241. ACER MANDSHURICUM. Manchurian maple. From Japan. Obtained from the Japanese and Chinese Tree-Seed Merchants and Nurserymen, Yamamoto, Kawabegun, near Kobe. A graceful, hardy shrub or small tree up to 30 feet high, with trifoliolate leaves dark green above and glaucous beneath, contrasting with the red petioles. The species is allied to A. negundo, the boxelder. For trial in all except the warmest parts of the United States. (Bell, Md.)

90334. ACER PICTUM MONO. Maple. From Hopei Province, China. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A tree up to about 60 feet high, that belongs in the same group of maples as the sugar and Norway maples. Its leaves are much smaller than theirs and are more simply lobed. For trial in the milder parts of the northern states and in the upper south. (Bell, Md.)

82472. ACER TRIFLORUM. Maple. From Chosen (Korea). Presented by T. Watanabe, Forest Experiment Station, Keijo. A tree up to 25 feet high, with glabrous branchlets. The leaves are made up of three oblong-lanceolate leaflets with entire or coarsely toothed margins, and the flowers, in groups of three, are followed by densely pubescent fruits having wide-spreading, nearly straight wings about 2 inches long. The species is allied to Acer negundo. Native to Chosen and Manchuria. For trial in all except the warmest parts of the United States. (Bell, Md.)

77643. ACTINIDIA CHINENSIS. Dilleniaceae. Yang tao. Plants grown from seed presented by David Whitcomb, Seattle, Wash. An ornamental deciduous climber native to Szechwan, China, with edible fruits. The leaves have a plush-like texture and an unusual dark-green color and their large size and regular spacing add to the beauty of the vine. The flowers are buff-yellow to white, fragrant, often 1½ inches across, and are produced in great abundance. The ovoid to globose, russet-brown, villous fruits are about 2 inches long. The green flesh resembles that of a gooseberry, but tempered with a flavor peculiarly its own. It can be used fresh or as jam. For trial in the south and on the Pacific coast. (Bell, Md.)

65018. ADENOCARPUS FOLIOLOSUS. From Mercedes, Teneriffe, Canary Islands, at an altitude of 2,300 feet. A leguminous shrub in general habit like a genista with crowded branches and leaves. The yellow flowers are numerous, in compact terminal racemes. For trial in hot arid regions having mild winters. (Chico, Calif.)

81505. AGONIS FLEXUOSA. Myrtaceae. From Melbourne, Victoria, Australia. Presented by the Melbourne Botanic Gardens. A tall evergreen shrub or tree up to 40 feet high,



native to Western Australia. The young shoots are silky, and the linear-lanceolate leaves, 2 to 6 inches long, have in their axils small heads of flowers with persistent white petals. For trial only in the warmest parts of California and Florida. (Chico, Calif.)

82473. ALNUS HIRSUTA SIBIRICA. Betulaceae. Alder. From Chosen (Korea). Presented by T. Watanabe, Forest Experiment Station, Keijo. A handsome tree, native to Siberia, 60 feet high, of broad-pyramidal habit and vigorous growth, with broadly ovate leaves, about 5 inches long, which are dark green above and glaucous beneath. For trial in all except the coldest parts of the northern states. (Bell, Md.)

32374. AMYGDALUS PERSICA. Peach. This variety originated at the Government Experiment Farm, San Antonio, Texas, among a lot of plants grown from seeds obtained in Mexico by G. Onderdonk. It is a medium-sized clingstone fruit, with golden yellow flesh, firm, sweet, of good texture and unusually fine flavor. Of value for home canning purposes. At Chico, California, it matures in late August; at San Antonio, Texas, about the first of September. Plants on Shalil peach stock. (Chico, Calif.)

41395. AMYGDALUS PERSICA. Dwarf Peach. From Kiayingchau, Kwangtung, China. Presented by George Campbell. A dwarf, evergreen, ornamental Chinese peach with showy flowers, grown in its native land as a house plant. At the Plant Introduction Garden, Chico, California, a tree of this variety is about 7 feet high, with a spread of 10 feet, and with deep-green, heavy, compact evergreen foliage. The small clingstone fruit is fragrant but of inferior quality. Ripening season at Chico, early September. Plants budded on Indian Blood peach stocks. (Chico, Calif.)

43127. AMYGDALUS PERSICA. Ideal Peach. From New Zealand. Plants presented by H. R. Wright. An elongated oval, freestone peach, about  $2\frac{1}{2}$  inches in length, with yellow, red-mottled skin, and firm, lemon-yellow, mildly acid flesh of good quality. The pit is pink, staining the flesh slightly. In California this variety ripens about the middle of July; in Georgia and Connecticut it ripens 10 days ahead of the Elberta. It has promise for home use, and also for drying and shipping. Plants on Indian Blood peach stock. (Chico, Calif.)

43129. AMYGDALUS PERSICA. Late Champion Peach. From New Zealand. Plants presented by H. R. Wright. This late-maturing freestone peach appears to thrive as far north as New Jersey and southern Michigan, in Oklahoma, and also in California. The tree is large and vigorous, and bears a good crop of roundish fruit about  $2\frac{1}{2}$  inches in diameter. The skin is yellow, tinged with red, and the golden-yellow flesh is sweet, spicy, and of good texture. The pit is small and pink. At Chico, California, it matures early in October; it is of promise as a late dessert peach, and should be good for shipping and canning. Part of the plants are on Shalil peach stocks and part on Indian Blood peach. (Chico, Calif.)

43134. AMYGDALUS PERSICA. Osprey Improved Peach. From New Zealand. Presented by H. R. Wright. Fruits nearly spherical, about  $2\frac{1}{2}$  inches in diameter; skin greenish yellow overlaid with light red on exposed side, thin, tender; flesh white, rather soft, very juicy, subacid, of good quality, slightly stained around pit, freestone. Ripens about the middle of August at Chico, Calif. Recommended for home use. (Chico, Calif.)



43137. AMYGDALUS PERSICA. Up-to-Date Peach. From New Zealand. Plants presented by H. R. Wright. A vigorous, prolific variety which bears free-stone fruits, averaging about  $2\frac{1}{4}$  inches in diameter, with golden-yellow skin mottled with red. The sweet, juicy, melting flesh is of high quality; the medium-sized pit is pink, slightly staining the flesh. Its ripening season is the same as that of Elberta, and it thrives as far north as New Jersey. For trial as a home fruit, and for shipping and drying. (Chico, Calif.)

55563. AMYGDALUS PERSICA. Peach. Plants budded on Shalil peach stocks, from a seedling grown and selected by the Plant Introduction Garden, Chico, California, from seed obtained through John R. Putnam, American Consul at Valencia, Spain. Fruits large, clingstone, about  $2\frac{1}{2}$  inches in diameter, yellow with a red blush; flesh golden yellow throughout and of excellent flavor; pit small. This variety promises to be of value as a commercial canning peach. It remains firm when cooked, retains its delicate flavor, and does not require a heavy sirup. The fruit ripens at Chico the latter part of August. (Chico, Calif.)

55564. AMYGDALUS PERSICA. Peach. Plants budded on Shalil peach stock from a selected seedling, grown and selected at the Plant Introduction Garden at Chico, California, from seed obtained through John R. Putnam, American Consul at Valencia, Spain. Fruits round, about  $2\frac{1}{4}$  inches in diameter; skin golden yellow, blushed red. Pit small and yellow, clingstone, not coloring the dark yellow flesh, which is very firm and of good flavor. This peach ships well and may have value for canning. The variety ripens at Chico about the middle of August. (Chico, Calif.)

55813. AMYGDALUS PERSICA. Peach. Budded from a seedling grown and selected at the Plant Introduction Garden, Chico, California. Fruits round, yellow with red cheeks, slightly flattened at the ends and bulging in the center; about  $2\frac{1}{2}$  inches in diameter. Flesh yellow, very juicy, of good quality; freestone, slightly stained by the very small pit. In flavor this variety compares favorably with Late Crawford; it is about a week later than Elberta, and in texture it is better than the latter. The plants are on Shalil peach stocks. (Chico, Calif.)

55835. AMYGDALUS PERSICA. Peach. Seedling of the Spanish variety TARDIO AMARILLO, grown at the Plant Introduction Garden, Chico, Calif. Fruits nearly spherical, about  $2\frac{1}{2}$  inches long; skin golden yellow with reddish tinge; flesh golden yellow with tinge of red at pit, juicy, of good texture and flavor. Matures at Chico in late August or early September. A good canning clingstone and a heavy bearer. These plants are on Shalil peach stocks. (Chico, Calif.)

55836. AMYGDALUS PERSICA. Peach. Plants budded on Shalil peach stocks, from a selected seedling of the variety TARDIO AMARILLO from Spain, grown at the Plant Introduction Garden, Chico, California. Fruits round, about  $2\frac{1}{2}$  inches in diameter; skin orange-yellow; flesh dark lemon-yellow, firm, fairly juicy, of good quality, clinging to pit, slightly stained by pit. Appears to have promise as a canning variety. Ripens at Chico, California, in late August. (Chico, Calif.)

68352. AMYGDALUS PERSICA. Pullar's Cling Peach. From New South Wales, Australia. Obtained from C. E. Vessey. Fruits nearly spherical, about  $2\frac{1}{2}$  inches long; skin dark rich yellow colored on one side with red blush or stripings; flesh firm, dark lemon yellow or orange, somewhat tough, medium juicy, slightly red at the pit, slightly



acid, flavor good. Appears to have the qualities of a good canning peach. Plants on Indian Blood peach and Amygdalus potanini stocks. (Chico, Calif.)

68354. AMYGDALUS PERSICA. Goodman's Choice Peach. From New South Wales. Obtained through Dr. Elwood Mead. Fruits nearly spherical, about 2 1/3 inches in diameter; skin yellow, colored in part or almost wholly by dark red; flesh dark lemon-yellow, firm, moderately juicy, with little or no staining at pit, of rich, sweet flavor, clingstone. Useful as a canning peach. Ripens at Chico, late in August. Plants on Amygdalus potanini stocks. (Chico, Calif.)

43139. AMYGDALUS PERSICA NECTARINA. Ansenne Nectarine. From New Zealand. Plants presented by H. R. Wright. Fruits large, nearly 2 1/2 inches long, freestone, dark red on the exposed side, cream-colored dotted with red on the unexposed side. The flesh, which is creamy white, melting and juicy, is of excellent quality but very soft and perishable and stained by the light red pit. The tree is prolific. At Chico, California, this variety ripens late in July or early in August. Plants are on Indian Blood peach stocks. (Chico, Calif.)

43140. AMYGDALUS PERSICA NECTARINA. Diamond Jubilee Nectarine. From New Zealand. Plants presented by H. R. Wright. The fruits of this freestone variety are about 2 inches in diameter and are dark green with a dark-red cheek. The creamy yellow flesh, which is somewhat stained by the light-red pit, is very juicy, sweet and of excellent flavor and quality. At Chico, California, it ripens from late July to early August. The plants are on Indian Blood peach stocks. (Chico, Calif.)

43141. AMYGDALUS PERSICA NECTARINA. Gold Mine Nectarine. From New Zealand. Plants presented by H. R. Wright. A prolific variety bearing fruits which average 2 1/4 inches in length, with red and yellow skin, and creamy white flesh of excellent flavor and high quality. The light-red pit is of medium size. At Chico, California, this nectarine ripens in late July and early August, and in central New Jersey at the same time as the Elberta peach. The plants are on Indian Blood peach stocks. (Chico, Calif.)

43142. AMYGDALUS PERSICA NECTARINA. Lippiatt's Late Orange Nectarine. From New Zealand. Plants presented by H. R. Wright. The fruits of this freestone variety are about 2 inches in diameter, with deep-orange skin mottled with red; the flesh is firm, juicy, sweet, and of good texture with an excellent flavor. It should be a good shipper. At Chico, California, it ripens in late July or early August. Plants on Indian Blood peach stocks. (Chico, Calif.)

43143. AMYGDALUS PERSICA NECTARINA. Muir's Seedling Nectarine. From New Zealand. Presented by H. R. Wright. Fruits freestone, slightly elongated, about 2 inches long; skin green splashed with dark red; flesh white, juicy, sweet, of good flavor, slightly pink near the red pit; ripens at Chico, Calif., in late July and early August. Plants on Indian Blood peach stocks. (Chico, Calif.)

43144. AMYGDALUS PERSICA NECTARINA. New Boy Nectarine. From New Zealand. Presented by H. R. Wright. A freestone nectarine of medium size, with green skin mottled with red; the flesh is red near the pit, and of fair quality. At the Plant Introduction Garden, Chico, California, this has proved to be a productive variety, ripening in late July or early August. Plants on Indian Blood peach stocks. (Chico, Calif.)



43146. AMYGDALUS PERSICA NECTARINA. Surecrop Nectarine. From New Zealand. Presented by H. R. Wright. Fruits round, about 2 3/8 inches in diameter; skin tender, light greenish yellow, overlain largely with dark red; flesh white, sweet, moderately juicy, subacid, slightly stained at pit. A productive variety, ripening at Chico, California, in late July or early August. These plants are on Indian Blood peach stocks. (Chico, Calif.)

65975. AMYGDALUS PERSICA NECTARINA. Fertile del Poitou Nectarine. From Saonara, Padova, Italy. The fruit is up to about 2 inches in diameter, flattened at the base, with a wide, shallow suture. The skin is tender and is greenish yellow, overlain with red. The white flesh is stained with red at the pit, and is free; it is sweet, juicy and of good flavor. The fruit ripens late in July at Chico. This variety and the succeeding (No. 65978), because of their tender skin and rather soft flesh when ripe, probably will have value for local use rather than for shipping. These plants are on Indian Blood peach stocks. (Chico, Calif.)

65978. AMYGDALUS PERSICA NECTARINA. Regina Vittoria Nectarine. From Saonara, Padova, Italy. A large, well-colored freestone nectarine with white, juicy, moderately sweet, acidulous flesh. The quality is fairly good. Ripens late in July at Chico. The plants are on Indian Blood peach stocks. (Chico, Calif.)

65979. AMYGDALUS PERSICA NECTARINA. Vineuse Henri Monicourt Nectarine. From Saonara, Padova, Italy. Fruits up to 2 1/2 inches broad and nearly as long; skin mostly violet-red, overlying creamy yellow, resistant to injury though not tough; flesh reddish next to skin, whitish, more or less streaked with red elsewhere, fairly juicy yet pleasantly firm, sweet, subacid, aromatic; pit free, rather small, tight in cavity, staining flesh slightly. An excellent variety for fresh eating and apparently has good shipping qualities, as it tends to dry slightly instead of quickly softening and decaying with age. Ripens in late August at Chico. (Chico, Calif.)

74011. AMYGDALUS PERSICA NECTARINA. Pineapple Nectarine. From Topfield, Mass. Presented by James Marlboro. An English variety, grown there as a greenhouse nectarine. The bright-red fruits are of good size, with yellow rather acid flesh of good flavor. It ships well. Ripens at Chico, Calif., early in July. Most of these plants are on Indian Blood peach stocks and the remainder on Amygdalus kansuensis. (Chico, Calif.)

77543. ARTHROPODIUM CIRRHATUM. Liliaceae. From Nelson, New Zealand. Presented by A. Wilkinson, New Zealand Alpine and Rock Garden Society. An herbaceous perennial bearing tall somewhat branched stalks, with small leafy bracts subtending the drooping white flowers. These are about 1 inch in diameter with slender tube and reflexed but spreading lobes and conspicuous stems and pistil, somewhat like Anthericum. For trial in the southeastern states and the Pacific northwest. (Chico, Calif.)

23014. ASPARAGUS sp. From Hangchow, Chekiang, China. Collected by the late Frank N. Meyer, agricultural explorer, Bureau of Plant Industry. A very small, herbaceous asparagus, attaining a height of only 3 to 5 inches. It is used as a lining along paths in small gardens and requires a shady situation. The plant endures light frosts without injury. For trial in the middle and lower south and in southern California. (Savannah, Ga.)

77013. *BAMBUSA* sp. Bamboo. From Canton, China. Collected by F. A. McClure. A dwarf, ornamental bamboo of the clump type. It was grown only in pots at Canton and usually did not exceed 3 feet in height. Grown in the open at Savannah, Georgia, it has reached a height of 12 feet. The ornamental value consists partly in the shortness and peculiar swollen character of the internodes of some of the culms. To the latter is due the Chinese name "Fat t'o chuk," meaning "Budda's belly bamboo." One large branch between 2 smaller ones arise from each node of the culms, with additional still smaller ones later. The leaves are 1 to 3 inches long by 3/16 to 5/8 of an inch wide. The foliage is little injured by temperatures down to about 26° F. and, with heavy mulching, plants outside at Savannah have withstood 21° without serious injury to the roots. For trial in the South Atlantic and Gulf coast regions. (Savannah, Ga.)

82474. *BETULA DAVURICA*. Birch. From Chosen (Korea). Presented by T. Watanabe, Forest Experiment Station, Keijo. A tree up to 60 feet high, with wide-spreading branches and purplish-brown flaky bark. The broadly wedge-shaped leaves, 2 to 4 inches long, are dark green above and have serrate margins. For trial in the northern states. (Bell, Md.)

82065. *BETULA JAPONICA*. Birch. From Chosen (Korea). Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A hardy ornamental tree, native to Japan, up to 75 feet high, with broadly oval leaves. It is related to *Betula pendula*. For trial in all except the warmest and coldest parts of the United States. (Bell, Md.)

82066. *BETULA JAPONICA*. Same as preceding (No. 82065). (Bell, Md.)

76860. *BOLUSANTHUS SPECIOSUS*. Fabaceae. From Melbourne, Victoria, Australia. Presented by the Melbourne Botanic Gardens. A small, ornamental South African tree with compound leaves and long racemes of violet flowers. It is very tender. The hard, white, durable timber is used for wheel spokes. For trial only in regions practically free from frost. (Chico, Calif.)

63554. *BOUGAINVILLEA WARSZEWICZII*. Nyctaginaceae. From Algeria. Collected by David Fairchild, agricultural explorer, Bureau of Plant Industry. A horticultural variety of this gorgeous-flowering climber. Instead of flowering feebly all through the season, this form bursts into bloom in the spring with a perfect mass of magenta flowers which completely hide the plant, and then it does not flower again until the following spring. For trial in southern Florida and southern California. (Bell, Md.)

82408. *BROMELIA PINGUIN*. Bromeliaceae. Pinguin. From Rio Piedras, Porto Rico. Presented by the Insular Experiment Station, Department of Agriculture and Labor. A tropical succulent plant, 4 to 6 feet high, with spiny-margined leaves that turn red with age. The reddish flowers are in dense panicles and the acid fruits, the size of plums, yield a cooling juice. Native to the West Indies. For trial in southern California and southern Florida. (Chico, Calif.)

23012. *BUXUS HARLANDII*. Box. From Hangchow, Chekiang, China. This Chinese species is almost as slow in growth as the dwarf box commonly used for edgings. It differs



from this chiefly in its longer leaves, often  $1\frac{1}{2}$  inches long on vigorous shoots, and its tendency to form rather broad, flat-topped bushes. The species suffers from winter-killing near Washington, D. C. For trial in the southern states and California. (Chico, Calif.)

51503. *CALLISTEMON CITRINUS*. Myrtaceae. Lemon Bottlebrush. Collected by H. L. Shantz in East Africa. An evergreen shrub or small tree up to 20 feet high, with lanceolate leaves 1 to 3 inches long, reddish when young, and spikes, 2 to 4 inches long, of small flowers with long bright-red stems. It holds its seed pods for several years. (Shantz.) Native to southeastern Australia. For trial in California and the Gulf States. (Chico, Calif.)

67072. *CANDOLLEA CUNEIFORMIS*. Candolleaceae. From Blackwood, South Australia. Presented by Edwin Ashby. A much branched evergreen shrub up to 8 feet in height with crowded, sessile, wedge-shaped leaves, and terminal, bright-yellow, five-petaled flowers, somewhat like single roses. For trial in the Gulf States and California. (Chico, Calif.)

42187. *CARAGANA MICROPHYLLA*. Pea-tree. From Kew, England. Presented by Sir David Prain, director, Royal Botanic Gardens. A Siberian leguminous shrub, 4 to 6 feet high, with pinnate leaves composed of 12 to 18 obovate leaflets one-third of an inch long and axillary yellow flowers borne singly or in pairs. For trial in the northern states. (Chico, Calif.)

90341. *CARAGANA* sp. Pea-shrub. From Hopei Province, China. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. From the mountainside near Chieh Tai Ssu Temple. Mostly shrubby, thorny plants with small leaves and small, rather long seed pods. This probably would make a good hedge plant. (Bell, Md.)

90342. *CARAGANA* sp. Pea-shrub. From Hopei Province, China. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Collected along small canyons on rocky mountainside near Tau Chou Ssu temple. Probably identical with preceding (F. P. I. No. 90341). For trial in the north and in the upper south. (Bell, Md.)

62703. *CARYOPTERIS TANGUTICA*. Verbenaceae. Presented by Vicary Gibbs, Aldenham House Gardens, Elstree, Herts, England. A deciduous shrub, growing to  $4\frac{1}{2}$  feet high, native to northwest China. It has opposite, ovate leaves  $\frac{5}{8}$  to  $1\frac{1}{2}$  inches long and numerous, axillary cymes of violet-blue flowers in summer. For trial in all but the most northern states. (Bell, Md.)

78551. *CARYOPTERIS TANGUTICA*. Verbenaceae. Obtained from Leon Chenault & Son, Orleans, France. Description same as for preceding (No. 62703). (Bell, Md.)

85732. *CELTIS SINENSIS*. Chinese hackberry. From Japan. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A tree native to China and Japan which grows to a height of 60 feet. The broadly ovate leaves, 2 to 4 inches long, are cordate at the base and acuminate at the apex, with a serrate-dentate margin. The dull orange-red fruits are borne on stout pedicels. This tree has proved hardy at the Arnold Arboretum, near Boston, Mass. (Chico, Calif.)

92047. *CELTIS SINENSIS*. Chinese hackberry. From Japan. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A tree, native to China and Japan, which grows to a height of 60 feet. The broadly ovate leaves, 2 to 4 inches long, are cordate at the base and acuminate at the apex, with a serrate-dentate margin. The dull orange-red fruits are borne on stout pedicels. This tree has proved hardy at the Arnold Arboretum. For trial in the southern half of the United States and in the Pacific Northwest. (Bell, Md.)

75718. *CERATOSTIGMA WILLMOTTIANUM*. Plumbaginaceae. From western China. Presented by Hugh Evans, Santa Monica, California. A shrubby species forming large rounded bushes, 1 to 3 feet high with angled purplish stems, bristly leaves and masses of deep cobalt-blue flowers an inch across from all the upper axils. The best flowers are produced from late summer till frost. For the southern states and the Pacific Coast. (Chico, Calif.)

62706. *CHAMAECYPARIS LAWSONIANA*. Pinaceae. Presented by Vicary Gibbs, Aldenham House Gardens, Elstree, Herts, England. Variety Fletcheri. A very distinct and dainty variety of the Lawson cypress, somewhat less hardy than the type, characterized by ascending branches and glaucous foliage intermediate between the juvenile and adult forms. It probably will not thrive in a dry climate. For trial on the Pacific coast and in the southern states except in southern Florida. (Bell, Md.)

37954. *CHAENOMELES LAGENARIA CATHAYENSIS*. Quince. From Shantung, China. Collected by the late Frank N. Meyer, agricultural explorer, Bureau of Plant Industry. A large-fruited variety, used by the Chinese to perfume their living rooms, but used by foreign missionaries to make preserves and jellies. (Chico, Calif.)

73862. *CHORIZEMA VARIUM*. From Victoria, Australia. Presented by Melbourne Botanic Gardens. An Australian leguminous shrub with slender, weak branches and coarse, oaklike leaves similar to those of *C. ilicifolium* except for the cordate base, and axillary and terminal racemes of flowers similar to that species except that the pea-shaped flowers are smaller, with reddish standards and darker red wings. For trial in southern California and southern Florida. (Chico, Calif.)

65003. *CISTUS CRISPUS*. Cistaceae. Rockrose. From Ronda, Spain. Collected by David Fairchild, agricultural explorer. A compact shrub about 2 feet high with narrow, sessile leaves. The deep-pink flowers like small, single roses, are borne near the tips of the shoots. Native to southern Europe. For trial in the southern United States. (Chico, Calif.)

74676. *CISTUS MONSPELIENSIS*. Montpellier rockrose. From Brignoles, France. Presented by R. Salgues, Brignoles Botanic Station. An evergreen shrub, 2 to 4 feet high, with erect much-divided branches, very narrow sessile, dark-green hairy leaves, and white flowers, an inch across, in terminal compact heads. Native to southern Europe and northern Africa. For trial in the southern United States. (Chico, Calif.)

65004. *CISTUS SALVIFOLIUS*. Rockrose. From Ronda, Spain. Collected by David Fairchild, agricultural explorer. A white-flowered rockrose of southern Spain where it covers great stretches of country in the cork-oak forests around Ronda. For trial in the southern United States. (Chico, Calif.)



70900. *CISTUS SYMPHYTIFOLIUS*. Rockrose. From Orotava, Teneriffe, Canary Islands. Collected by David Fairchild, agricultural explorer. A species something like the more familiar *C. laurifolius* but with deep rose-red flowers, blotched yellow at the base, and somewhat narrower foliage. For trial in southern California and southern Florida. (Chico, Calif.)

67350. *CISTUS VILLOSUS*. Rockrose. Presented by H. G. Carter, Cambridge Botanic Garden, Cambridge, England. An erect hairy shrub, 3 to 4 feet high, with wrinkled, gray-green leaves and reddish-purple flowers about 2 inches in diameter, borne singly or in threes. Native to the Mediterranean region. Probably tender north of southern Ohio. (Chico, Calif.)

72537. *CITHAREXYLUM BERLANDIERI*. Verbenaceae. From Brownsville, Texas. Presented by Peter H. Heinz. An ornamental shrub or small tree up to 30 feet high, of upright, rather loose growth, which may be made compact by clipping. The oblong or rhombic leaves are about 4 inches long. Early in March the shrub flowers in profusion and at the same time bears short axillary clusters of old, well-ripened, glossy, purple berries, as well as younger, coral-red ones. The ripe berries are eaten by ducks and other birds. The species is native to northeastern Mexico. For trial in the Gulf region and California. (Bell, Md.)

82068. *CLEMATIS APIIFOLIA*. Ranunculaceae. From Chosen (Korea). Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A climbing vine up to 10 feet in length, with long-petioled, 3-parted leaves; leaflets glabrous above, usually ovate, coarsely serrate, and sometimes 3-lobed. Flowers white  $\frac{1}{2}$ -inch across, in short, axillary cymes. They appear in September and October and are followed by fruits with plumose tails which give the plant a feathery appearance. For trial in the middle and upper south and the milder parts of the northern states. (Bell, Md.)

88344. *CLEMATIS ARMANDI* X *MEYENIANA*. From the Italian Riviera. Collected by David Fairchild, agricultural explorer, Bureau of Plant Industry, Allison V. Armour Expedition. Seedlings of this hybrid clematis, which is a remarkable pergola vine covering long arbors with a mass of foliage and immense clusters of white flowers. The vine has stood a temperature of 18° F., likes a moist, limestone soil and grows in partial shade. For trial in the Gulf region and in California. (Bell, Md.)

72793. *CLEMATIS CHRYSOCOMA SERICEA*. Presented by Sir A. W. Hill, Director, Royal Botanic Garden, Kew, England. An ornamental Chinese vine about 20 feet high with silky hairy rounded leaves and solitary or paired white flowers 3 to 4 inches across. For trial throughout the United States. (Chico, Calif.)

76341. *CLEMATIS MONTANA RUEENS* X *VEDRARIENSIS ROSEA*. From Paris, France. Seeds of this hybrid clematis were presented by Vilmorin-Andrieux & Co. The present plants are from cuttings from the series of seedlings obtained from these seeds. Some of the plants bear pink flowers and some white. For trial in the south and in California. (Bell, Md.)

82420. *COCCULUS TRILOBUS*. Japanese snailweed. From Island of Kohato, Chosen (Korea). Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant

Industry. A much-branched twining shrub of the moonseed family, growing to 12 feet high, with pubescent branchlets and leaves, the leaves being ovate to oblong-ovate and either entire or 3-lobed. The fruit is bluish-black, about a quarter of an inch thick, and is borne in attractive, axillary clusters. The species is hardy near Boston and keeps its leaves until very late in the autumn. For trial in the milder parts of the northern states and in the upper south. (Bell, Md.)

85733. COCCULUS TRILOBUS. Japanese snailweed. Same as preceding but collected by Messrs. Dorsett and Morse at Okota, Japan. (Chico, Calif.)

80935. CORIARIA JAPONICA. Coriariaceae. Japanese coriaria. From Japan. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers. A shrub with bright-green, opposite leaves and an abundance of bright-red fruits about the size of small cherries. When fully ripe the fruits are very dark red or purple. The flowers are said to be yellow and the plant poisonous to cows. For trial in the upper south and on the Pacific coast. (Bell, Md.)

82070. CORNUS COREANA. Cornaceae. Dogwood. From Chosen (Korea). Collected by P. H. Dorsett and W. J. Morse, agricultural explorers. A tree native to Chosen, up to 60 feet high, with reddish brown branchlets, dark-green elliptic leaves 3 to 6 inches long, loose clusters of small white flowers, and black fruits. For trial in all except the warmest and coldest parts of the United States. (Bell, Md.)

82071. CORNUS COREANA. Description the same as for the preceding (No. 82070). (Bell, Md.)

82475. CORNUS COREANA. From Chosen (Korea). Presented by T. Watanabe. Forest Experiment Station, Keijo. Description the same as for the preceding (Nos. 82070 and 82071). (Bell, Md.)

67550. COTONEASTER GLAUCOPHYLLA. Malaceae. Collected in Sumatra by the Allison V. Armour Expedition. A shrub native to Western China, with elliptic to elliptic-oblong leaves 1 to 2 inches long, glaucous beneath. The fruit is obovoid and about one-fifth of an inch long. The specimen plant found in Sumatra was 10 feet high and apparently not well adapted to its environment. This species is allied to Cotoneaster pannosa. For trial in the southern half of the United States. (Chico, Calif.)

83974. COTONEASTER sp. From southwestern Szechwan, China. Collected by J. F. Rock, National Geographic Society. A shrub 5 to 6 feet high, found in alpine meadows at 13,000 feet altitude. The rounded-obovate, mucronate leaves, up to 1½ inches long, are dull, dark green above and grayish green beneath, with ciliate margins. For trial in the southern states and on the Pacific coast. (Bell, Md.)

83976. COTONEASTER sp. Malaceae. From southwestern Szechwan, China. Collected by J. F. Rock, National Geographic Society. From the Likiang Snow Range, 10,000 to 12,000 feet altitude. A shrub 6 to 10 feet high with white flowers and red fruits. For trial in the south and on the Pacific coast. (Bell, Md.)

83975. CRATAEGUS KANSUENSIS. Hawthorn. From southwestern Szechwan, China. Collected by J. F. Rock, National Geographic Society. A shrub or small tree, 8 to 25



feet high, with glabrous, reddish-brown branches and broadly ovate, more or less pinnately-lobed leaves. The flowers are white to cream colored and the soft, pulpy fruit is bright red to orange. The species is closely related to Crataegus wattiana and C. sanguinea. For trial everywhere in the United States except the extreme north and extreme south. (Bell, Md.)

39557. CRATAEGUS LAVALLEI. Hawthorn. From California. Presented by Frank J. Hart. A hawthorn originally from France and probably of hybrid origin. It is a small shrubby tree about 20 feet high with few-flowered clusters of large, white flowers having red disks and followed in autumn by bright orange fruits, well set off by lustrous leaves. For trial in all but the warmest and coldest parts of the United States. (Chico, Calif.)

82072. CRATAEGUS SANGUINEA. Hawthorn. From Chosen (Korea). Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, at the Arboretum of the Agricultural Experiment Station, Suigen. A native Korean variety with bright-red globose fruits a third of an inch in diameter, in rather dense corymbs. For trial in the northern half of the United States. (Chico, Calif.)

33214. CYDONIA OBLONGA. De Antequera Quince. From Granada, Spain. Obtained from Pedro Giraud. A fairly prolific variety which bears round oblate fruits with yellow skin and light-yellow non-astringent flesh good for eating out of hand. It is good for cooking and preserving and makes excellent jelly. At Chico, California, it ripens the first week of November. Hardy except in the extreme north. (Chico, Calif.)

76711. DIANELLA TASMANICA. Liliaceae. From Australia. Presented by Mrs. Frieda Cobb Blanchard. Collected in the National Park, Tasmania. A Tasmanian herbaceous perennial 4 to 5 feet high, with sword-shaped serrate leaves 2 to 4 feet long, a lax panicle of nodding pale-blue flowers and bright-blue fruits on slender pedicels. For trial in California and the Gulf region. (Chico, Calif.)

77604. ENTELEA ARBORESCENS. Tiliaceae. From New Plymouth, New Zealand. Obtained from Duncan & Davies. A New Zealand shrub or small tree 20 feet high, with the growing parts covered with soft, stellate, hairs. The alternate, cordate leaves, nearly a foot across, are on petioles 8 inches long; the white flowers, an inch in diameter, are in erect cymes, and the globose pods are covered with long, rigid bristles. For trial only in regions nearly or quite free from frost. (Chico, Calif.)

75324. ERLANGIA CORDIFOLIA. Asteraceae. From Kabiti, near Nairobi, Kenya Colony, Africa. Collected by L. W. Kephart and R. L. Piemeisel, agricultural explorers, Bureau of Plant Industry. A tropical herbaceous plant with an abundance of deep-purple, tubular-shaped flowers in heads which resemble those of Vernonia (ironweed). The stems are purple at the base and light green at the top, and are finely pubescent. The alternate leaves have a soft white pubescence beneath. For trial in the southern United States. (Chico, Calif.)

78337. ESCALLONIA FLORIBUNDA. Escalloniaceae. Plants obtained from V. N. Gauntlett & Co., Chiddingfold, Surrey, England. A distinct species bearing long arching clusters of pure-white flowers between August and November. For trial in the Gulf region and California. (Bell, Md.)

78338. ESCALLONIA GLUTINOSA. Plants obtained from V. N. Gauntlett & Co., Chiddingfold, Surrey, England. A white-flowered variety of an evergreen shrub, native to Chile, with small, sessile, thick, cuneate-lanceolate leaves about 7 inches long. For trial in the extreme south and California. (Bell, Md.)

78348. ESCALLONIA sp. Plants obtained from V. N. Gauntlett & Co., Chiddingfold, Surrey, England. Variety Donardensis. A shrub of erect growth, 5 to 6 feet high, bearing pale-blush flowers between July and September. For trial in the lower south and in California. (Bell, Md.)

78350. ESCALLONIA sp. Plants obtained from V. N. Gauntlett & Co., Chiddingfold, Surrey, England. Variety Edinensis. A hybrid between variety philippiana (Escallonia virgata) and Escallonia punctata. The small, brilliant rose-pink flowers, covering the branches, are borne abundantly between July and September. For trial in the southern states and California. (Bell, Md.)

78351. ESCALLONIA sp. Plants obtained from V. N. Gauntlett & Co., Chiddingfold, Surrey, England. Variety Microphylla. A dense, twiggy bush, 2 to 3 feet high, of dwarf habit, with small, evergreen or semievergreen leaves and terminal panicles of bright red flowers between July and September. For trial in the south and on the Pacific Coast. (Bell, Md.)

57281. EUONYMUS HAMILTONIANUS. Celastraceae. Presented by A. D. Woeikoff, director, Experimental Farm, Echo, Manchuria. A large, Himalayan shrub which under favorable circumstances becomes a moderate-sized tree, 30 to 35 feet high, with a short, straight trunk 4 to 5 feet in girth. The clusters of 15 to 30 greenish white flowers are followed by yellow capsules which open and show the seeds, each entirely surrounded by a scarlet aril. The fruit ripens from August onward. The leaves become brilliantly colored in autumn. For trial in the upper south and all except the coldest parts of the north. (Bell, Md.)

90345. EUONYMUS sp. Celastraceae. From Peiping, China. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Growing on the inside wall of the east moat about the ancestral hall in the Temple of Heaven grounds. When the seeds are ripe the pods turn a beautiful pink and open from below, usually into 4 parts and expose the bright red arils of the seeds. The leaves are light green with pink petioles, the pink color extending part way up the midrib. (Bell, Md.)

86690. EVODIA FRAXINIFOLIA. Rutaceae. From Darjeeling, India. Presented by the Curator, Lloyd Botanic Garden. A small, much branched, densely leafy tree, smelling, when bruised, much like caraway. The bright green compound leaves are 8 to 12 inches long, the white flowers are borne in axillary and terminal cymes and the red fruits are less than an inch in diameter. In Sikkim, India, where this tree is native, the soft white wood is used for posts of huts. For trial in the Gulf region and California. (Bell, Md.)

90143. EVODIA HUPEHENSIS. Rutaceae. From Dairen, Manchuria. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. From trees along gullies in the mountain region south of Dairen. The trees are from 10

to 20 feet high. The species has handsome pinnate leaves, with large umbels of whitish flowers, followed by bunches of fruit which later turns dark red. Of probable value as a garden and park tree for the mild-wintered sections of the United States. For trial south of the Ohio River and on the Pacific Coast. (Bell, Md.)

82078. FAGARA AILANTHOIDES. Rutaceae. From Chosen (Korea). Collected by P. H. Dorsett and W. J. Morse, agricultural explorers. A handsome Japanese tree, up to 60 feet high, the branches of which have numerous short prickles. The pinnate leaves are 1 to 4 feet long, with oblong-ovate leaflets 3 to 6 inches long. The flowers and fruit are in terminal corymbs. The seeds are oily and, when crushed, have a pleasant odor. For trial in all except the coldest parts of the United States. (Bell, Md.)

90790. FORSYTHIA OVATA. Oleaceae. From Chosen (Korea). Presented by M. Tozawa, Director, Forest Experiment Station, Keijo. A shrub about 6 feet high with spreading branches, yellowish gray branchlets, ovate, serrate or nearly entire leaves, 2 to 3 inches long, and amber-yellow flowers, an inch long, appearing very early in spring. For trial in the milder sections of the northern states. (Bell, Md.)

75444. FRAXINUS LONGICUSPIS. Ash. From near Sapporo, Hokkaido, Japan. Collected by R. K. Beattie, Bureau of Plant Industry. Japanese name Aodamo. A graceful Japanese tree up to 45 feet high, with compound leaves of 5 to 7, lanceolate, long-pointed leaflets. The white flowers appear in June and the foliage turns purple in autumn. For trial in the milder regions of the northern states. (Bell, Md.)

82479. FRAXINUS MANDSHURICA. Manchurian ash. From Chosen (Korea). Presented by T. Watanabe, Forest Experiment Station, Keijo. A handsome ash, often 100 feet high, native to Japan and the adjacent parts of the Asiatic mainland. The leaves are up to 15 inches long, with dull-green bristly leaflets. The tree is said to be susceptible to late spring frosts. For trial in the northern states. (Bell, Md.)

82428. FRAXINUS sp. Ash. From Chosen (Korea). Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. Plants from seed collected from a tree at the base of Fuji Shariin. One tree in the village measured 18 inches or more in diameter and 50 feet or more high. It is probably a good timber tree. For trial in the upper south and the milder sections of the northern states. (Bell, Md.)

65014. FUCHSIA CORYMBIFLORA. From the Mediterranean region. Collected by David Fairchild, agricultural explorer. A handsome, Peruvian fuchsia with large, serrate, acuminate leaves and deep-red flowers. The plant becomes tall but requires support in order to attain full height, and it is therefore adapted for pillars or pergolas in the warmest parts of the United States. (Chico, Calif.)

89211. GENISTA AETNENSIS. Fabaceae. Aetna broom. From Sicily, Italy. Presented by Giardiano Allegra, Catania. An attractive shrub, 6 feet or less in height, with nearly leafless, slender branches and fragrant, yellow flowers in loose, terminal racemes. Native to Sicily and Sardinia. For trial in the south and in California. (Bell, Md.)

85747. GENISTA MONOSPERMA. Bridal-veil broom. From Casablanca, Morocco. Presented



by H. Earle Russell, American Consul. An ornamental leguminous shrub, native to Spain, about 10 feet high, with slender, grayish branches, and small, very narrow leaves. The fragrant white flowers are in short lateral racemes. For trial in the middle and lower south and in California. (Bell, Md.)

89737. *GLEDITSIA HETEROPHYLLA*. Caesalpiniaceae. Honeylocust. From China. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A rather tall growing, very thorny, small leaved shrub with pods less than an inch wide and over 2 inches long. This may have value as an ornamental or as a hedge plant. For trial in all except the warmest and coldest parts of the United States. (Bell, Md.)

90347. *GLEDITSIA SINENSIS*. Chinese honeylocust. From Pa Ta Chu, Western Hills, Hopei Province, China. Collected near Hsiang Chieh San Temple, by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A hardy, spiny, leguminous tree, up to 40 feet high, native to China. The pinnate leaves are 5 to 7 inches long. The pods, commonly 4 to 7 inches long by 1 to 1½ inches wide, are used instead of soap and the tree is often called the "soap-pod tree." These plants are seedlings of an ordinary tree. For trial in the northern states. (Chico, Calif.)

90348. *GLEDITSIA SINENSIS*. Chinese honeylocust. From same source as preceding (No. 90347). These plants are seedlings of a tree of unusually attractive form, growing on a dry, rocky mountainside, which bore exceptionally large and fine pods. The pods were 9 to 10 inches long by an inch or more wide and ½ to ¾ inch thick. They were remarkably straight and flat. Such pods are much preferred to the smaller, irregular-shaped ones. For trial in the northern states. (Chico, Calif.)

80550. *GREWIA OCCIDENTALIS*. Tiliaceae. From Kirstenbosch, Newlands, Cape Province, Union of South Africa. Presented by the National Botanic Gardens. The younger parts of this evergreen shrub are covered with rusty tomentum. The dentate, cordate leaves are 1 to 2 inches long, and the small flowers, in axillary or terminal cymes, are followed by purplish, 4-lobed fruits the size of small peas. This species is very tender and is for trial only in the warmest parts of California and Florida. (Chico, Calif.)

91251. *HEMIPTOLEA DAVIDII*. Ulmaceae. David zelkova. From Japan. Obtained from the Chugai Shokubutsu Yen Nurseries, Yamamoto, Kawabegun, near Kobe. A shrubby, spiny, elmlike tree, native to Chosen and northern China, which has merit as an ornamental tree because of its handsome dark-green foliage. The leaves are oval or oblong, deeply toothed, and about 2 inches long. Because of its spines, the tree may be useful for tall hedges. For trial in the northern states except in the coldest parts. (Bell, Md.)

76345. *HYMENANTHERA CRASSIFOLIA*. Violaceae. From France. Presented by Vilmorin-Andrieux & Company, Verrieres-le-buisson, Seine-et-Oise, France. A dense half-evergreen New Zealand shrub about 6 feet high with crowded obovate leaves, small yellowish-white or brownish flowers and small berry-like white fruits. For trial in California and the Gulf States. (Chico, Calif.)

76113. *HYPERICUM PATULUM*. Japanese hypericum. Presented by L. Parde, Directeur,

Arboretum des Barres et Fruticetum Vilmorianum, Nogent sur Vernisson, Loiret, France.  
Grandiflorum A large-flowered form of the Japanese hypericum which is a half-evergreen spreading shrub with golden-yellow flowers. For trial in the upper south and the milder parts of the northern states. (Chico, Calif.)

24638. ILEX CORNUTA. Chinese Holly. From northern China. Presented by Rev. J. M. W. Farnham. This holly has spiny, dark-green, glossy leaves, and in winter is loaded with clusters of scarlet berries. While it does not make as symmetrical a crown as does the native Christmas holly, Ilex opaca, its attractive, lustrous foliage and bright-colored fruits render it a fine winter ornamental for the southern half of the United States. It will grow somewhat farther north on the Pacific coast and in the eastern quarter of the country. Most of these plants are seedlings but a few are rooted cuttings from pistillate plants. (Chico, Calif.)

78083. JASMINUM STEPHANENSE. Obtained from E. Turbat and Company, Orleans, France. A fragrant, hybrid jasmine resembling in general habit the familiar, white Jasminum officinale but with pink-tinted buds and flowers suggestive of its other parent, J. beesianum. Hardy from Philadelphia south. (Bell, Md.)

56317. LIGUSTRUM IONANDRUM. Privet. From Yunnan, China. Collected by J. F. Rock, agricultural explorer. A compact, ornamental shrub, 10 to 12 feet high, found among limestone boulders on the Likiang Snow Range at altitudes of 10,000 feet. For trial in the southern United States. (Chico, Calif.)

65021. LONICERA IMPLEXA. Honeysuckle. From the Mediterranean region. Collected by David Fairchild, agricultural explorer. A much-branched, shrubby, evergreen honeysuckle with perfoliate, oval or narrowly oblong leaves and pink fruits in the leaf axils. For trial in the Gulf States and California. (Chico, Calif.)

76584. LONICERA PILEATA YUNNANENSIS. Honeysuckle. Native to southwestern China. Presented by Vicary Gibbs, Aldenham House Gardens, Elstree, Herts, England. A prostrate, half-evergreen shrub with small, privet-like foliage, inconspicuous, yellow flowers, and clusters of dainty but not conspicuous dark-violet berries. For trial in the middle and upper south. (Bell, Md.)

78147. LONICERA PILEATA YUNNANENSIS. Honeysuckle. Native to southwestern China. Obtained from V. Lemoine and Son, Nancy, France. Same as the preceding (No. 76584). (Bell, Md.)

81540. LONICERA sp. Honeysuckle. From Karinzawa, Japan. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A bush bearing an abundance of bright red fruits. It should have value as an ornamental in California and the southern States. (Chico, Calif.)

66774. LOPEZIA HIRSUTA. Onagraceae. From Rabat, Morocco. Presented by Jardin d'Essais de Rabat. An ornamental, subtropical, climbing plant with small, pink flowers, which makes a peculiarly delicate vine for walls and rockwork. Native to Mexico. For trial in Florida and California. (Chico, Calif.)

65022. LOTUS GLAUCUS. From the Mediterranean region. Collected by David Fairchild, agricultural explorer. A tender, herbaceous, deep-rooted perennial, about a foot high, with glaucous-green foliage; closely related to the clovers. It is native to dry, rocky hillsides in the Canary Islands and Madeira. For trial as a cover plant in the Southwest. (Chico, Calif.)

90665. MAACKIA AMURENSIS. Fabaceae. Amur maackia. From Manchuria, China. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A small tree, native to eastern Asia, with orange-brown bark, dull-green, compound leaves, and short, erect clusters of small, yellowish white flowers. For trial especially in the north. (Bell, Md.)

81174. MELALEUCA ACUMINATA. Myrtaceae. From Ventimiglia, Italy. Presented by La Mortola Garden. A glabrous, bushy shrub with slender branches, mostly opposite, lanceolate leaves a quarter of an inch long; and lateral clusters of small, whitish flowers. Native to Australia. For trial in the Gulf States and California. (Chico, Calif.)

90712. MELALEUCA ARMILLARIS. Drooping melaleuca. A tall shrub with gracefully drooping branchlets, narrowly linear leaves less than an inch long, and cylindrical spikes, 2 inches long, of small white flowers. Native to Australia. For trial in southern California and the Gulf region. (Chico, Calif.)

79137. MELALEUCA ELLIPTICA. From San Francisco, California. Seeds presented by John McLaren, Superintendent of the Golden Gate Park. A tall evergreen shrub, native to western Australia, with elliptical evergreen leaves half an inch long, and cylindrical spikes of large showy red flowers. For trial in California and the Gulf States. (Chico, Calif.)

75565. MELALEUCA NODOSA. From Melbourne, Victoria, Australia. Presented by the Melbourne Botanic Gardens, through Miss Anne McIlvaine, Trenton, N. J. A tall, smooth shrub, native to Australia, with rigid, awl-shaped leaves and small heads, half an inch in diameter, of pale-yellow flowers. For trial in southern California and southern Florida. (Chico, Calif.)

75566. MELALEUCA PUBESCENS. From Melbourne, Victoria, Australia. Presented by the Melbourne Botanic Gardens, through Miss Anne McIlvaine, Trenton, N. J. A tall shrub or small tree native to Australia. The small, linear leaves, half an inch long, are crowded on the pubescent branches and the small, white flowers are borne in loose, cylindrical spikes. For trial in southern California and southern Florida. (Chico, Calif.)

75567. MELALEUCA STYPHELOIDES. From Melbourne, Australia. Presented by Melbourne Botanic Gardens through Miss Anne McIlvaine. A tall, Australian tree, sometimes 80 feet high, with thick, spongy bark. The leaves are very small and the small, creamy white flowers are in dense spikes about 2 inches long. For trial in the Gulf States and California. (Chico, Calif.)

80414. MYOPORUM ACUMINATUM ANGUSTIFOLIUM. Myoporaceae. From South Australia. Seeds presented by W. J. Spafford, Deputy Director of the Department of Agriculture, Adel-



laide. An erect, glabrous shrub with alternate, nearly linear leaves 1 to 3 inches long, axillary clusters of 2 to 4 small, campanulate, white flowers, followed by slightly succulent fruits about  $\frac{1}{2}$  inch in diameter. It is native to Queensland, Australia, but these seeds were obtained from a specimen about 14 feet high, growing in Rochester, South Australia. For trial in California and the Gulf region. (Chico, Calif.)

80415. MYOPORUM ACUMINATUM ANGUSTIFOLIUM. Same as the preceding (No. 80414). except that the seeds were collected from a shrub 9 feet high with fruits  $\frac{1}{4}$ -inch in diameter, growing in Pekina, South Australia. (Chico, Calif.)

80416. MYOPORUM ACUMINATUM ANGUSTIFOLIUM. Same as No. 80414, except that the seeds were collected from a shrub about 9 feet high growing in Port Germain, South Australia, and the fruits are  $\frac{1}{4}$ -inch in diameter. (Chico, Calif.)

64192. MYOPORUM INSULARE. From Morocco, Africa. Collected by David Fairchild, agricultural explorer. The principal hedge plant and windbreak of the Moroccan coast. It stands clipping well, grows easily from cuttings, is an evergreen of a pleasing dark-green color, will stand a few degrees of frost and makes a dense windbreak. (Chico, Calif.)

42659. PHYLLOSTACHYS BAMBUSOIDES CASTILLONI. Castillon bamboo. From Yokohama, Japan. An ornamental variety of the hardy giant timber bamboo, having brilliant-yellow culms, or canes, with bright-green stripes on the grooved or flattened sides of the internodes. The leaves occasionally have hair-line stripes of white. The variety is smaller than the type, reaching a height, under favorable conditions, of about 40 feet after 10 or 12 years. It withstands temperatures down nearly to zero with little injury to the leaves. Like the timber bamboo, it has vigorous, running rhizomes (underground stems) which spread rapidly in the ground in all directions and from which, at intervals, new culms rise. A thicket is thus formed, which eventually becomes a sort of forest as culms of large size are produced. The culms may be cut for use after the end of their third season, when they have reached maximum hardness. They may live for 6 to 10 years but, if crowded, the older ones should be cut earlier. According to size, they are useful for fishing poles, clothes poles, plant stakes and many other purposes. The Castillon bamboo can not be grown to full size in an area less than 50 or 60 feet square. Depending upon the kind of soil, the rhizomes travel at depths of 2 to 3 feet and if a grove is to be kept within defined limits a permanent barrier must be sunk into the ground. Otherwise, it will be necessary to break or cut the new culms each season as they appear beyond the limits set. Not less than 15 plants (shipping weight about 20 lbs) will be sent to an experimenter. These are for planting in one area to start a grove. The first season, however, the plants should be grown  $1\frac{1}{2}$  to 2 feet apart in a nursery row, in well-fertilized soil, and be freely watered in dry weather. In the late winter or early spring of the second year they should be transplanted with a ball of earth to the permanent situation on good well-drained land, spaced 12 feet apart each way. Well-rotted manure or a good commercial fertilizer should be placed in the hole. For trial in California and in all except the warmest parts of the southern states. (Savannah, Ga.)

75155. PHYLLOSTACHYS BAMBUSOIDES CASTILLONI. Same as preceding (No. 42659) but presented by Royal Botanic Gardens, Kew, England. (Savannah, Ga.)

52686. PHYLLOSTACHYS FLEXUOSA. Presented by Vilmorin, Andrieux & Co., Paris, France. A rather dwarf, hardy bamboo of the running type, which grows to a height of 10 feet or more. The linear-lanceolate leaves, usually 4 or 5 on a branchlet, are  $1\frac{1}{2}$  to 4 inches long by  $\frac{5}{16}$  to  $\frac{1}{2}$  inch wide, medium green above and glaucous beneath. The culms, at first green, become yellowish with age. The habits of this species are similar to those described for the others and the general treatment required is the same as for the preceding, but the spacing of the plants in the permanent planting should be 6 to 8 feet. Plants will be furnished in lots of 15 or more. For trial especially in the middle south. (Savannah, Ga.)

55713. PHYLLOSTACHYS NEVINII. Stake-and-forage Bamboo. From China. A hardy, rather dwarf bamboo of the running type. Culms of maximum height, 15 - 16 feet, are not produced until 5 or 6 years after the setting out of small plants. The species has withstood temperatures of 5 degrees below zero with little injury to the leaves. Culms 3 or more years old are useful for plant stakes for peas, chrysanthemums, etc., small fish poles, and other purposes on the farm. The habits of growth of this bamboo and the methods of culture and control are the same as described for the Castillon bamboo, in the preceding, except that in transplanting from the nursery to the permanent location the second season the spacing should be about 10 feet each way. Not less than 25 plants (total shipping weight 25 to 35 lbs.) will be sent to an experimenter. This bamboo is very similar to Phyllostachys sp., FPI 23234, described later in this list. The new culms of P. nevinii, however, appear a little earlier in the spring, the foliage is less dense, the culm sheaths are finely striped in contradistinction to the unstriped sheaths of the other species, and the culms and branches during the first year or two are distinctly yellowish on the flattened sides. For trial in California and in all except the warmest parts of the southern states. (Chico, Calif., and Savannah, Ga.)

66784. PHYLLOSTACHYS PUBERULA NIGRA. Black bamboo. From southern China. A handsome, small to medium-sized bamboo, of free-running habit, with arching culms which take on a dense, glossy, purplish-black color in the second year. The foliage is abundant and is well distributed throughout the length of the culms. The maximum height that culms eventually may attain is not known but probably will exceed twenty feet. The variety will probably withstand temperatures down to about 10° F. No special uses have been made of the culms. The habits of growth and methods of culture and control are the same as described for Phyllostachys bambusoides castilloni, except that spacing of plants in permanent setting should be about 10 feet. Not less than 15 plants will be sent to an experimenter. For trial in California and all except the warmest parts of the southern states. (Savannah, Ga.)

49505. PHYLLOSTACHYS PUBERULA NIGRA-PUNCTATA. Black-spotted bamboo. From Japan. A somewhat dwarf, hardy bamboo of slow-spreading habit. The culms are at first green but later become increasingly spotted or blotched with black until nearly, but not quite, solid black. The ultimate height this variety may reach is not known but may not exceed 15 or 16 feet. It is believed the plants will endure temperatures as low as 5 or 8 degrees F. without serious injury. The habits of growth and the methods of culture and control are much the same as for the several preceding bamboos but, because of the much slower rate of spreading, this variety can be grown successfully in smaller areas than can those previously described, -- perhaps as little as 30 to 35 feet square. The culms are useful for plant stakes, etc. The spacing in setting plants permanently should be about 8 feet apart. Not less than 15 plants will be sent to an experimenter. For trial in California and all except the warmest parts of the southern states. (Savannah, Ga.)



38912. *PHYLLOSTACHYS SULFUREA*. Presented by Dr. V. A. Argollo Ferrao, Centro Agricola, Bahia, Brazil. A hardy, rather dwarf bamboo of vigorous, running habit, with pale green to yellowish culms up to 12 or more feet high. Probably a native of China. The branches are usually in pairs and the leaves, mostly borne in threes, average 2 to 3 inches long. The degree of hardiness of the species is uncertain but it will probably endure a temperature of 10° F. or lower, without injury. The culms are useful for plant stakes, etc. The habits and methods of culture and control are much the same as for the bamboos previously described. For permanent planting the plants should be spaced 8 feet apart. Not less than 15 plants will be sent to an experimenter. For trial in California and in all except the warmest parts of the southern states. (Savannah, Ga.)

23234. *PHYLLOSTACHYS* sp. From China. A hardy bamboo of the running type up to 15 feet high, similar to *Phyllostachys nevinii* in general appearance, but slightly hardier. The more easily observed vegetative differences between the two are found in the somewhat later starting of the new culms of the present species in the spring, the unstriped culm sheaths, the denser foliage and the entire greenness of the culms and branches during the first year. Not less than 25 plants (shipping weight 25 to 35 lbs.) will be sent to an experimenter. The spacing of the plants in transplanting should be about 10 feet. For information regarding general habits of growth, methods of culture and control, and uses, see data under *Phyllostachys bambusoides castilloni* and *P. nevinii*. For trial in California and all except the warmest parts of the southern states. (Chico, Calif., and Savannah, Ga.)

83811 *PHYSOCARPUS AMURENSIS*. Rosaceae Ninebark. From Japan. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A shrub about 10 feet high, closely resembling the common ninebark, *P. opulifolius*, but the doubly serrate, 3 to 5-lobed leaves are larger, as are also the loose umbels of white flowers. It is native to Manchuria and Chosen. For trial in the northern states. (Bell, Md.)

78179. *PICEA GLEHNI*. Saghalin spruce. From Japan. Collected by R. K. Beattie, Bureau of Plant Industry. A handsome Japanese evergreen tree up to 120 feet high, with lustrous brown or violet cones. Collected in the University Forest, near Toikanbetsu, and sent by Wasaku Ishio. For trial throughout the northern states. (Bell Md.)

78375. *PILEOSTEGIA VIBURNOIDES*. Hydrangeaceae. Obtained from G. Reuthe, Foxhill Hardy Plant Farm, Keston, Kent, England. A little-known, Chinese, evergreen climber with thick, lanceolate, elliptic, opposite, dark-green leaves about 4 or 5 inches long, and dense umbels of white flowers which resemble those of *Viburnum tinus*. For trial in the South and on the Pacific Coast. (Bell, Md.)

78405. *PINUS TABULAEFORMIS*. Pine. Obtained from the Forestry Experiment Station, Keijo, Chosen. A Chinese pine up to 75 feet high, with dark gray bark on the trunk, red on the branches, and orange or grayish yellow branchlets. The glaucescent leaves, usually two in a cluster, are stout and 3 to 6 inches long, and the ovoid cones, 2 to 4 inches long, are pale tawny yellow changing to dark brown and persisting for several years. For trial in the northern states. (Bell, Md.)

82484. *PINUS TABULAEFORMIS*. Same as preceding (No. 78405).

90793. *PINUS TABULAEFORMIS*. Same as preceding.



52686. PHYLLOSTACHYS FLEXUOSA. Presented by Vilmorin, Andrieux & Co., Paris, France. A rather dwarf, hardy bamboo of the running type, which grows to a height of 10 feet or more. The linear-lanceolate leaves, usually 4 or 5 on a branchlet, are  $1\frac{1}{2}$  to 4 inches long by  $\frac{5}{16}$  to  $\frac{1}{2}$  inch wide, medium green above and glaucous beneath. The culms, at first green, become yellowish with age. The habits of this species are similar to those described for the others and the general treatment required is the same as for the preceding, but the spacing of the plants in the permanent planting should be 6 to 8 feet. Plants will be furnished in lots of 15 or more. For trial especially in the middle south. (Savannah, Ga.)

55713. PHYLLOSTACHYS NEVINII. Stake-and-forage Bamboo. From China. A hardy, rather dwarf bamboo of the running type. Culms of maximum height, 15 - 16 feet, are not produced until 5 or 6 years after the setting out of small plants. The species has withstood temperatures of 5 degrees below zero with little injury to the leaves. Culms 3 or more years old are useful for plant stakes for peas, chrysanthemums, etc., small fish poles, and other purposes on the farm. The habits of growth of this bamboo and the methods of culture and control are the same as described for the Castillon bamboo, in the preceding, except that in transplanting from the nursery to the permanent location the second season the spacing should be about 10 feet each way. Not less than 25 plants (total shipping weight 25 to 35 lbs.) will be sent to an experimenter. This bamboo is very similar to Phyllostachys sp., FPI 23234, described later in this list. The new culms of P. nevinii, however, appear a little earlier in the spring, the foliage is less dense, the culm sheaths are finely striped in contradistinction to the unstriped sheaths of the other species, and the culms and branches during the first year or two are distinctly yellowish on the flattened sides. For trial in California and in all except the warmest parts of the southern states. (Chico, Calif., and Savannah, Ga.)

66784. PHYLLOSTACHYS PUBERULA NIGRA. Black bamboo. From southern China. A handsome, small to medium-sized bamboo, of free-running habit, with arching culms which take on a dense, glossy, purplish-black color in the second year. The foliage is abundant and is well distributed throughout the length of the culms. The maximum height that culms eventually may attain is not known but probably will exceed twenty feet. The variety will probably withstand temperatures down to about 10° F. No special uses have been made of the culms. The habits of growth and methods of culture and control are the same as described for Phyllostachys bambusoides castillonii, except that spacing of plants in permanent setting should be about 10 feet. Not less than 15 plants will be sent to an experimenter. For trial in California and all except the warmest parts of the southern states. (Savannah, Ga.)

49505. PHYLLOSTACHYS PUBERULA NIGRA-PUNCTATA. Black-spotted bamboo. From Japan. A somewhat dwarf, hardy bamboo of slow-spreading habit. The culms are at first green but later become increasingly spotted or blotched with black until nearly, but not quite, solid black. The ultimate height this variety may reach is not known but may not exceed 15 or 16 feet. It is believed the plants will endure temperatures as low as 5 or 8 degrees F. without serious injury. The habits of growth and the methods of culture and control are much the same as for the several preceding bamboos but, because of the much slower rate of spreading, this variety can be grown successfully in smaller areas than can those previously described, -- perhaps as little as 30 to 35 feet square. The culms are useful for plant stakes, etc. The spacing in setting plants permanently should be about 8 feet apart. Not less than 15 plants will be sent to an experimenter. For trial in California and all except the warmest parts of the southern states. (Savannah, Ga.)

38912. PHYLLOSTACHYS SULFUREA. Presented by Dr. V. A. Argollo Ferrao, Centro Agricola, Bahia, Brazil. A hardy, rather dwarf bamboo of vigorous, running habit, with pale green to yellowish culms up to 12 or more feet high. Probably a native of China. The branches are usually in pairs and the leaves, mostly borne in threes, average 2 to 3 inches long. The degree of hardiness of the species is uncertain but it will probably endure a temperature of 10° F. or lower, without injury. The culms are useful for plant stakes, etc. The habits and methods of culture and control are much the same as for the bamboos previously described. For permanent planting the plants should be spaced 8 feet apart. Not less than 15 plants will be sent to an experimenter. For trial in California and in all except the warmest parts of the southern states. (Savannah, Ga.)

23234. PHYLLOSTACHYS sp. From China. A hardy bamboo of the running type up to 15 feet high, similar to Phyllostachys nevinii in general appearance, but slightly hardier. The more easily observed vegetative differences between the two are found in the somewhat later starting of the new culms of the present species in the spring, the unstriped culm sheaths, the denser foliage and the entire greenness of the culms and branches during the first year. Not less than 25 plants (shipping weight 25 to 35 lbs.) will be sent to an experimenter. The spacing of the plants in transplanting should be about 10 feet. For information regarding general habits of growth, methods of culture and control, and uses, see data under Phyllostachys bambusoides castilloni and P. nevinii. For trial in California and all except the warmest parts of the southern states. (Chico, Calif., and Savannah, Ga.)

83811. PHYSOCARPUS AMURENSIS. Rosaceae. Ninebark. From Japan. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A shrub about 10 feet high, closely resembling the common ninebark, P. opulifolius, but the doubly serrate, 3 to 5-lobed leaves are larger, as are also the loose umbels of white flowers. It is native to Manchuria and Chosen. For trial in the northern states. (Bell, Md.)

78179. PICEA GLEHNI. Saghalin spruce. From Japan. Collected by R. K. Beattie, Bureau of Plant Industry. A handsome Japanese evergreen tree up to 120 feet high, with lustrous brown or violet cones. Collected in the University Forest, near Toikanbetsu, and sent by Wasaku Ishio. For trial throughout the northern states. (Bell Md.)

78375. PILEOSTEGIA VIBURNOIDES. Hydrangeaceae. Obtained from G. Reuthe, Foxhill Hardy Plant Farm, Keston, Kent, England. A little-known, Chinese, evergreen climber with thick, lanceolate, elliptic, opposite, dark-green leaves about 4 or 5 inches long, and dense umbels of white flowers which resemble those of Viburnum tinus. For trial in the South and on the Pacific Coast. (Bell, Md.)

78405. PINUS TABULAEFORMIS. Pine. Obtained from the Forestry Experiment Station, Keijo, Chosen. A Chinese pine up to 75 feet high, with dark gray bark on the trunk, red on the branches, and orange or grayish yellow branchlets. The glaucescent leaves, usually two in a cluster, are stout and 3 to 6 inches long, and the ovoid cones, 2 to 4 inches long, are pale tawny yellow changing to dark brown and persisting for several years. For trial in the northern states. (Bell, Md.)

82484. PINUS TABULAEFORMIS. Same as preceding (No. 78405).

90793. PINUS TABULAEFORMIS. Same as preceding.



85697. PINUS YUNNANENSIS. Yunnan pine. Form Likiang, Yunnan, China. Collected by J. F. Rock, National Geographic Society. One of the most common trees of Yunnan; varying in height from 30 to 80 feet and with a very straight or crooked trunk, depending on the location and exposure. It prefers well-drained soils, and grows at altitudes ranging from 9,000 to 11,000 feet. For trial in all except the coldest parts of the northern states. (Bell, Md.)

68355. PRUNUS ARMENIACA. Trevatt Apricot. From New South Wales, Australia. Presented by the New South Wales Department of Agriculture. Trees 9 to 14 feet high, yielding well. Fruits almost round, about 2 inches in diameter; skin smooth, yellow; flesh apricot yellow, rather soft, sweet, of fair quality; pit large, loose in cavity. Ripens at Chico, California, in June. (Chico, Calif.)

38282. PRUNUS ARMENIACA ANSU. Apricot Plum. From Shantung, China. Collected by the late F. N. Meyer, agricultural explorer. This is a very delicious, golden yellow fruit with a reddish blush. It is a cling, about 2 inches in diameter, and has orange-colored flesh, with a distinctive flavor resembling that of Prunus simonii. At Chico, Calif., it ripens about the end of June. The tree grows to a height of 10 or 12 feet. These plants are on Amygdalus potanini stocks. For trial in the southern states and California. (Chico, Calif.)

76202. PRUNUS SALICINA. Japanese Plum. From New Zealand. Obtained from George A. Green, New Zealand Association of Nurserymen. Purple King. This handsome fruit is nearly spherical, about 2 inches in diameter and flattened at the apex. Skin thick, tough, deep purplish red and covered with a glaucous bloom. Flesh yellow, of peculiar firm texture, and of fair flavor. The fruit is a cling and ripens at Chico, Calif., very early in August. It should be of value at least as a home fruit in localities to which it is adapted. (Chico, Calif.)

43182. PRUNUS SALICINA X CERASIFERA. Best's Hybrid Plum. From New Zealand. Presented by H. R. Wright. A productive, vigorous variety, with dark green, dense foliage, and heart-shaped, greenish yellow fruits of medium size; flesh yellow, juicy and of fine flavor. Of possible value for shipping and canning. Ripens at Chico, California, late in June. These plants are on Amygdalus potanini stocks. Probably hardy except in the extreme north. (Chico, Calif.)

31652. PRUNUS SALICINA X CERASIFERA MYROBALANA. Methley Plum. From Natal, South Africa. Presented by W. J. Newberry, Curator, Botanic Gardens. This plum has attracted wide and favorable comment in California and Texas. In Butte County, California, the trees began bearing at two years from planting, maturing fruit late in May. In Texas, where the tree has withstood severe drought and low temperatures, the fruit matures early in May, and is perhaps the earliest ripening plum in the country. The fruits are of good size, about fifteen to the pound, with dark reddish skin and firm, dark-red flesh of the finest texture and of pleasant flavor. They are excellent for shipping. Thrives on peach stock. These plants on Amygdalus kansuensis stocks. (Chico, Calif.)

91527. PRUNUS SIMONII. Simon plum. A superior variety of the Simon plum, of uncertain origin, growing at the U. S. Plant Introduction Garden, Chico, Calif. The quality of the fruit is said by pomologists to be considerably higher than that of

other known forms of the Simon plum, and there is less bitterness in the skin. The other known forms apparently have been of interest mainly to the breeder, while this strain may prove of value as it is, at least as a home fruit. It deserves careful testing. Plants mostly on Amygdalus kansuensis stocks. For trial in all but the warmest and coldest parts of the United States. (Chico, Calif.)

13298. PUNICA GRANATUM. Pomegranate. From the Mediterranean region. An excellent and very productive variety with large, bright-red, thin-skinned fruits. The bright-red pulp surrounding the seeds has an acid, vinous flavor. For trial in the Gulf region and California. (Chico, Calif.)

33227. PUNICA GRANATUM. Pomegranate. From Spain. Obtained by W. T. Swingle, Bureau of Plant Industry. Variety Negro Monstruoso. One of the principal varieties grown in the vicinity of Granada, Spain; of the "Spanish Sweet" type. The fruits are about 3 inches in diameter, deep purplish red to a deep cream color, with pulp of splendid flavor. This has proved an excellent variety in California, where it ripens in November. For trial in the Gulf States and California. (Chico, Calif.)

33229. PUNICA GRANATUM. Rogises Pomegranate. From Granada, Spain. Presented by Pedro Giraud. In the neighborhood of Granada are cultivated the finest Spanish pomegranates, and many of the early introductions of this fruit into California in the days of the Spanish occupation were brought from that region. From the same source comes this attractive fruit, which is considered by many as one of the finest pomegranates. It is of medium size, thin-skinned, highly colored and contains pink, sweet pulp, with soft seeds. Ripens at Chico, California, about the first of November. For trial in the Gulf states and California. (Chico, Calif.)

80408. PYRACANTHA ATALANTIOIDES. Malaceae. Firethorn. Presented by Vilmorin-Andrieux & Co., Paris, France. A more or less spiny shrub 9 feet or more high, native to central and western China, with rigid branches and small leaves varying from more or less oblong to lanceolate or elliptic, the margins more or less crenate-serrate, bright green above, paler beneath. The white or creamy white flowers are in rather dense corymbs nearly 2 inches across and are followed by brilliant crimson, globose fruits  $\frac{1}{4}$  inch in diameter. For trial in the south and on the Pacific coast. (Bell, Md.)

72814. PYRACANTHA CRENATO-SERRATA. Firethorn. From the Himalayas. Presented by Sir A. W. Hill, Director, Royal Botanic Gardens, Kew, England. A spiny evergreen shrub up to 9 feet high, the young branchlets rusty-pubescent, and elliptic to obovate-oblong leaves about 1 to 2 inches long, lustrous, dark green above and lighter beneath. The coral-red fruits are a quarter of an inch across. For trial in the southern half of the United States. (Chico, Calif.)

40736. PYRACANTHA CRENULATA KANSUENSIS. Firethorn. From Kansu Province, China. Collected by the late Frank N. Meyer, Agricultural Explorer. A shrub, up to about 8 feet high, with fine foliage and orange-colored berries of attractive appearance. It grows on stony mountainsides in China, and is recommended for trial everywhere in the United States except the extreme north. (Chico, Calif., and Savannah, Ga.)



94099 PYRACANTHA CRENULATA ROGERSIANA. Firethorn. This shrub was found growing at the U. S. Plant Introduction Garden, Chico, Calif., and its previous source is not known. It is a native of southwestern China. It grows to a height of 5 to 6 feet and bears oblanceolate leaves about 1 to 2 inches long, unequally serrulate. The reddish orange fruits are about  $\frac{1}{4}$  inch across. For trial in the southern states and California. (Chico, Calif.)

89698. QUERCUS ACUTISSIMA. Oak. From China. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry, in the grounds of the Yung Ling Tomb at Nankou. A tree, up to 50 feet high, with handsome, chestnut-like foliage. The lustrous green leaves are 3 to 7 inches long, obovate-oblong to oblong, serrate with bristle-like teeth terminating the parallel veins. For trial in the northern states and the upper south. (Bell, Md.)

89605. QUERCUS DENTATA. Daimyo oak. From China. Collected near Pa Fa Chu, Western Hills, by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A large tree, native to Chosen and northern and western China, 75 to 80 feet tall. The obovate, sinuate-lobed leaves, dark green above and grayish tomentose beneath, are 10 to 12 inches long and 9 inches wide, and the ovoid acorns, an inch wide, are about half covered by the cup which has lanceolate spreading scales. For trial in all except the most northern states. (Bell, Md.)

89696. QUERCUS DENTATA. Same as preceding, but collected near Fa Hua Szu China.

89697. QUERCUS DENTATA. Same as preceding, but collected near Nankou, China.

78389. QUERCUS SESSILIFLORA. Durmast oak. From Northwood, Middlesex, England. Presented by R. C. B. Gardner. Collected in Woburn Park, Bedfordshire, by permission of the Duke of Bedford. A large European tree, closely related to the English oak, Quercus robur, with lustrous bright-green, obovate leaves having 5 to 9 pairs of rounded lobes and hemispheric cups which cover about one third of the ovoid acorns. For trial in the northern states. (Bell, Md.)

89606. QUERCUS VARIABILIS. Fagaceae. Oriental oak. From near Peiping, China. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A large tree up to 80 feet in height, in mixed woods or forming pure stands at altitudes of 2,600 to 5,200 feet in central and western China. It has deeply furrowed bark, dark-green, crenately serrate leaves with bristlelike teeth, and almost sessile, roundish acorns. This oak has proved hardy in Massachusetts and western New York. For trial in the northern states. (Bell, Md.)

81650. RHAMNUS JAPONICA. Rhamnaceae. Buckthorn. From Hokushu, Japan. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers. A shrub, native to Japan, up to 9 feet high, with glossy pale-green leaves 1 to 2 inches long, an abundance of greenish brown flowers in dense clusters at the ends of the short branches, and small, blackish purple berries. For trial in all except the coldest parts of the northern states. (Bell, Md.)

89768. RHAMNUS PARVIFOLIA. Rhamnaceae. Buckthorn. From China. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, near Peiping at Fa Hua Szu Temple. in

Hopei Province. A low growing thorny shrub with black fruits found on the mountain side on decomposed granitic soil in dry, arid places. It may make a good hedge or ornamental shrub, especially for rock gardens. For trial in all except the coldest parts of the northern states. (Bell, Md.)

44401. *RUBUS IRENAEUS*. Presented by Vicary Gibbs, Aldenham House, Elstree, Herts, England. A prostrate evergreen shrub, native of central and western China, beset with small decurved prickles and having white flowers, large red or yellow, inedible fruits, and simple leaves, suggesting those of coltsfoot. It is not known to have fruited as yet in this country. For trial in the southern half of the United States. (Savannah, Ga.)

22987. *SAGERETIA THEEZANS*. Rhamnaceae. From Eastern China. Received through the late Frank N. Meyer, agricultural explorer. A small-leaved ornamental evergreen or semi-evergreen shrub, which makes a dense growth of arching branches and attains a height of 6 to 7 feet, with a spread of 10 feet or more. The small flowers are very fragrant. The shrub has grown well in central Georgia, and in arid regions of the southwest under irrigation. It has proved useful as a hedge plant in the south. For trial in the southern states and on the Pacific coast. (Chico, Calif.)

78368. *SARCOCOCCA HOOKERIANA HUMILIS*. Buxaceae. From western China. Obtained from V. N. Gauntlett & Co., Ltd., Chiddingfold, Surrey, England. A dwarf, evergreen shrub 1 to 4 feet high, with leathery, lanceolate leaves 1 to 2 inches long, axillary racemes of small, whitish flowers and round, black fruits. Like all *Sarcococcas*, most useful as an under shrub. Probably tender north of southern Ohio. (Bell, Md.)

78387. *SARCOCOCCA RUSCIFOLIA*. Buxaceae. Obtained from G. Reuthe, Keston, Kent, England. An evergreen shrub up to 6 feet high, native to central and western China, with lustrous, dark-green, ovate leaves, small racemes of whitish flowers and dark-scarlet fruits. For trial in the southern half of the United States. (Bell, Md.)

52670. *SASA AURICOMA*. Presented by the Royal Botanic Gardens, Kew, England. Originally from China or Japan. A very dwarf, hardy bamboo of the running type, which grows 1 to 2 feet high. It is a strikingly handsome little species, having green-and-yellow-striped leaves about 6 inches long by  $\frac{1}{4}$  of an inch wide. It makes an exceedingly attractive ground cover in protected situations in regions where the minimum winter temperature is not much lower than zero F. However, from some cause -- possibly bright sunlight during the cold, the leaves are often killed at temperatures several degrees higher. The recovery of the plants by the putting out of new leaves in the spring is fairly rapid. On account of the hardiness and vigor of the underground parts of the plant it becomes weedy if the rhizomes are not prevented by a deep barrier of some sort from spreading beyond a set limit. Eradication, if desired, is difficult. Plants will be furnished in lots of 5 or 10. For trial especially in the middle and upper south. (Savannah, Ga.)

75163. *SASA DISTICHA*. Presented by the Royal Botanic Gardens, Kew, England. A dwarf, hardy bamboo of the running type, native to Japan, which grows 3 to 5 feet high. The linear-lanceolate, bright-green leaves are 2 to 4 inches long by  $\frac{5}{16}$  to  $\frac{1}{4}$  inch wide. The foliage has withstood temperatures down to about zero with little injury but, like the preceding, it is likely to be browned sometime during the winter.



Complete recovery, by the putting out of new leaves, takes place during the spring. The general habits of the plant are similar to those of the preceding species and the treatment required is the same. Plants will be furnished in lots of 10 or more. For trial especially in the middle and upper south. (Savannah, Ga.)

52673. *SASA PUMILA*. Presented by the Royal Botanic Gardens, Kew, England. Originally from Japan. One of the best and hardiest of the very dwarf, running bamboos. Its greatest height is about 2 feet at Washington, D. C. The medium-green leaves average about  $3\frac{1}{4}$  inches long by half an inch wide, and the plant makes an exceedingly attractive ground cover. It has endured minimum temperatures as low as 5 to 3 degrees below zero F., without serious injury to the foliage, though, like the preceding species, the leaves are commonly killed sometime during the winter. Recovery is complete by late spring. The habits of the plant are like those of *Sasa auricoma* and the measures required for control are the same. Plants will be furnished only in lots of 10 or more. For trial especially in the middle and upper south. (Savannah, Ga.)

75166. *SASA PUMILA*. Same as preceding but presented by the Royal Botanic Gardens, Kew, England. (Savannah, Ga.)

52674. *SASA VARIEGATA PYGMAEA*. Presented by Vilmorin, Andrieux & Co., Paris, France. The smallest of all known bamboos, growing only 6 to 10 inches high. It is of the hardy, running type and is a native of Japan. The leaves, 1 to 2 inches long, are green above and whitish pubescent beneath; their cold resistance is probably about the same as that of the other species of *Sasa* described. The habits of the plant and methods of treatment required are also much the same. Plants furnished in lots of 10 or more. For trial especially in the middle and upper south. (Savannah, Ga.)

84231. *SCHIZANDRA* sp. Magnoliaceae. From southwestern China. Collected by J. F. Rock, National Geographic Society. A climber, 30 to 40 feet high, with red flowers; found in the forests of Jaradi at 11,500 feet altitude. For trial along the Gulf coast and in southern California. (Bell, Md.)

21967. *SOPHORA DAVIDII*. Fabaceae. From Peiping, Hopei, China. Obtained by the late F. N. Meyer, Agricultural Explorer. A spiny leguminous shrub growing 6 to 10 feet tall, bearing small pinnate leaves, loaded with small violet-tinted whitish flowers in spring. Chinese name, Kuei tsi ching. It may be used as a hedge plant and is somewhat drought resistant. It requires pruning when grown as an ornamental in the south. For trial in all except the most northern states. (Chico, Calif.)

39124. *SOPHORA FLAVESCENS*. Fabaceae. From Peiping, Hopei, China. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A sub-shrubby perennial, 3 to 4 feet high with odd-pinnate leaves of 3 to 6 pairs of elliptical leaflets 1 to 2 inches long, and loose racemes of creamy white, pea-shaped flowers an inch long. It is native to northern China. For trial in the northern states. (Bell, Md.)

82333. *SORBUS ALNIFOLIA*. Mountain-ash. From Chosen (Korea). Collected by P. H. Dorsett and W. J. Morse, agricultural explorers. An upright tree with a dense round head, attractive, bright-green foliage, and clusters of small, red and yellow fruits. Native to eastern Asia. For trial in the upper south and the milder parts of the northern states. (Bell, Md.)

80371. *STRANVAESIA DAVIDIANA*. Malaceae. From China. Collected by J. F. Rock, National Geographic Society. A handsome tree, 15 to 20 feet high, growing in the forests of Peshui, Likiang Snow Range, Yunnan, at an altitude of 10,500 feet. The autumnal leaves are a brilliant red on the upper whorl and a deep, rich, glossy green on the lower whorl. The gorgeous, red berries are in large, dense corymbs and are very ornamental. For trial in the middle and upper south and in California. (Chico, Calif., and Bell, Md.)

76945. *SWAINSONA GALEGIFOLIA*. Darling Pea. From Melbourne, Australia. Presented by Mrs. Frieda Cobb Blanchard. An Australian subshrub climbing to a height of several feet, with large, deep-red, pink or white flowers. This species is said to be poisonous to stock. For trial in California and the Gulf region. (Chico, Calif.)

90671. *SYRINGA OBLATA*. Oleaceae. Broadleaf lilac. From Hiungyocheng, Manchuria. Collected by P. H. Dorsett and W. J. Morse, Bureau of Plant Industry. A tree lilac, found in great masses here and there on rocky mountain slopes, at altitudes between 3,000 and 5,000 feet. Of value as a stock for standard lilacs and for hybridization purposes. For trial in the northern states. (Bell, Md.)

85739. *SYRINGA OBLATA DILATATA*. Oleaceae. Lilac. From Japan. Collected near Kobe, Japan, by P. H. Dorsett and W. J. Morse, agricultural explorers. A loosely branched shrub up to 12 feet high, with ovate, long-pointed leaves, 6 inches long, and loose clusters of pale purple-lilac flowers. For trial in the northern states. (Bell, Md.)

90672. *SYRINGA OBLATA DILATATA*. Oleaceae. Lilac. From Hiungyocheng, Manchuria. Obtained by P. H. Dorsett and W. J. Morse, agricultural explorers, from the Yugakuyo Agricultural Experiment Station (S. M. Ry.). Description the same as for preceding (No. 85739.) (Bell, Md.)

92068. *SYRINGA OBLATA DILATATA*. Oleaceae. Lilac. From Dairen, Manchuria. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers. Description the same as for preceding (Nos. 85739 and 90672). (Bell, Md.)

90409. *SYRINGA* sp. Oleaceae. Lilac. From Chieh Tai Szu Temple, near Peiping, Hopei, China. Collected on a mountainside by P. H. Dorsett and W. J. Morse, agricultural explorers. A large blooming wild lilac 15 feet or more high. For trial in the northern states. (Bell, Md.)

63649. *VITEX NEGUNDO*. From Canton, China. Collected by F. A. McClure, agricultural explorer. A Chinese shrub or small tree, with 5-parted leaves and loose terminal panicles of pale bluish flowers. The plants flower at an early age and, where moisture is sufficient, they continue to flower through most of the frostless season. The flowers are freely visited by bees. The plants are less hardy and less ornamental than those of the variety *incisa*. For trial in the southern half of the United States. (Chico, Calif.)

83951. *ZANTHOXYLUM PIPERITUM*. Japanese prickly-ash. From Subashiri, Shizuoka Ken, Mt. Fuji, Japan. Collected by P. H. Dorsett and W. J. Morse, agricultural explorers, Bureau of Plant Industry. A Japanese shrub or small tree armed with slender prickles. The compound leaves are made up of 11 to 19 ovate leaflets, and the small corymbs of greenish flowers are followed by gland-dotted, reddish fruits which open and expose the black seeds. For trial in the upper south and the milder parts of the northern states. (Bell, Md.)



82353. ZELKOVA SERRATA. Sawleaf Zelkova. Collected by Dorsett and Morse, agricultural explorers, near Keijo, Chosen. A handsome Japanese tree up to 90 feet high, with a short trunk dividing into many upright spreading branches and forming a broad round-topped head much like an elm. The sharply serrate leaves are ovate and are usually 2 to 3 inches long, or, on young shoots, up to 8 inches long. (Chico, Calif.)

82488. ZELKOVA SERRATA. Sawleaf Zelkova. Obtained from the Forestal Experiment Station, Keijo, Chosen. Same as the preceding (No. 82353). (Chico, Calif.)

22684. ZIZIPHUS JUJUBA. Mu shing hong Jujube. From Tsintse, Shansi, China. Obtained by the late Frank N. Meyer, agricultural explorer, Bureau of Plant Industry. The fruits of this variety are ellipsoid, somewhat flattened at the end, and of large size, sometimes as much as  $1\frac{1}{2}$  inches broad. The stone is medium to large, and sharply pointed. Sometimes the bony portion of the stone does not harden, thus giving rise to what are termed seedless fruits. While trees of this variety do not bear as heavily as do those of some other sorts, the fruits have a high sugar content. An excellent jujube with shapely fruits which process well. This and succeeding varieties for trial especially in semi-arid regions of the southwest. (Chico, Calif.)

22686. ZIZIPHUS JUJUBA. Lang Jujube. From Tsintse, Shansi, China. Obtained by the late Frank N. Meyer, agricultural explorer. The fruits are obovoid to pear-shaped, sometimes oblique, of large size, often as much as an inch and a half in greatest diameter. The stone is ellipsoid, medium-sized, tapering to one end which terminates in a sharp spine. This variety is a heavy bearer and the fruits have a high sugar content. Undoubtedly it is one of the best sorts yet tested in the United States. (Chico, Calif.)

38245. ZIZIPHUS JUJUBA. Sui men Jujube. From Paihsiangchen, Shansi, China. Obtained by the late Frank N. Meyer, agricultural explorer. The fruits of this variety are ellipsoid, medium-sized, and up to  $1\frac{1}{2}$  inches in length by one half inch in thickness. The stone is medium-sized, tapering toward one end and terminating in a sharp point. The variety is an excellent one for general purposes and processes well. (Chico, Calif.)

38249. ZIZIPHUS JUJUBA. Li Jujube. From Fuma, Shansi, China. Obtained by the late Frank N. Meyer, agricultural explorer. This is the largest variety yet introduced into this country and is somewhat later in ripening than most others. The fruits are round to ovoid and  $1\frac{1}{2}$  to 2 inches long. The stone is rather large, ovoid, tapering toward one end with a sharp point. An excellent sort and highly recommended. (Chico, Calif.)





